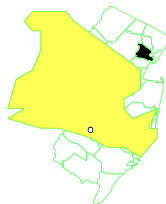


U.S. RADIUM CORP.

NEW JERSEY

EPA ID# NJD980654172



EPA REGION 2 CONGRESSIONAL DIST. 10

Essex County
City of Orange

Other Names:
U.S. Radium

Site Description

The former U.S. Radium Corporation plant site covers 2 acres in the City of Orange. The site is a former radium-processing facility where extraction, production, application, and distribution took place from about 1915 through 1926. Approximately ½ ton of ore per day was processed and disposed of on and off the site. The original facility buildings were removed in 1999 as part of the remedial action. In addition, radium-contaminated soils and debris have been identified at more than 240 noncontiguous properties in the vicinity of the plant site and at various satellite locations throughout the municipalities of Orange, West Orange and South Orange. Investigations to identify other radium-contaminated properties associated with the site are still on-going. The noncontiguous vicinity and satellite properties are occupied by residences, light industries, offices, grocery stores, and apartment buildings. The main site is located in a densely populated, urban residential neighborhood.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY

Proposed Date: 12/01/82

Final Date: 09/01/83

Threats and Contaminants



Soil contains radium-226 and other radioactive materials. The radium-226 decays to radon gas and radon decay products which can concentrate in basements and other ground-level enclosed spaces. Residents who are directly exposed to radiation, inhale radioactive dust particles, or inadvertently ingest radioactive particles from the site may suffer adverse health effects in the form of an increased risk of certain types of cancer. Workers and customers of commercial properties would be similarly affected.



Cleanup Approach

The site is being addressed in two stages: immediate actions and a long-term remedial action focusing on cleanup of the entire site.

Response Action Status



Immediate Actions: EPA has installed radon mitigation systems and gamma radiation shielding at certain residential and commercial properties where elevated levels have been detected, thereby minimizing the potential for exposure at these properties. In addition, a fence was installed around the perimeter of the main site to prevent trespassers from coming into contact with contaminated material.



Entire Site: Remedies for the site were selected in two Records of Decision, signed in September 1993 and August 1995. The remedial action involves the excavation and off-site disposal of radium-contaminated material at the former U.S. Radium plant site, and at affected residential and commercial properties. As stated earlier, more than 240 contaminated properties have been identified to date; investigations are ongoing and over 650 properties have already been investigated. This will be a final remedy for these properties.

The long-term soil remedy has been divided into phases. The remedial actions for Phase 1 and Phase 2 (71 properties) started in January 1997 and were completed in December 1998. The remedial actions for Phase 3 (63 properties) began in September 1997 and were completed in October 1999. Phase 4 (the plant site and 23 other properties) began in September 1998 and it was completed in September 2001. Phase 5 (37 properties) began in September 2000 and was completed in December 2002. Phase 6 (34 properties) began in September 2001 and was completed in September 2003, and Phase 7 (currently 12 properties) was initiated in September 2002.

EPA has also initiated an investigation to determine if the U.S. Radium site has caused contamination of ground water. That investigation began in 2002 and required the installation of monitoring wells.

Cleanup Progress *(Actual Construction Underway)*

The remedy is expected to be performed in seven phases, but additional phases may be necessary. Phase 1 and Phase 2 of the remedial action were completed in December 1998 and resulted in the removal of approximately 25,000 cubic yards (approximately 38,400 tons) of radium contamination. Phase 3 was completed in October 1999 and resulted in the removal of approximately 9,000 cubic yards (approximately 14,400 tons) of radium-contaminated material. Phase 4 was completed in September 2001 and resulted in the removal of approximately 34,000 cubic yards (approximately 54,400 tons) of radium-contaminated material. Phase 5 was completed in December 2002 and resulted in the removal of approximately 10,000 cubic yards (approximately 16,000 tons) of radium-contaminated material. Phase 6 was completed in September 2003 and addressed approximately 5,000 cubic yards of radium-contaminated material. Phase 7, which is currently underway, is expected to address approximately 2,000 cubic yards of radium-contaminated material. Property investigations continue to be performed and additional phases of remedial action may be required.

EPA also initiated an investigation to determine if the U.S. Radium site has caused contamination of ground water.

Site Repository



Orange Public Library, 348 Main Street, Orange, New Jersey 07050